Chapter VIII - REPORTS AND FORMS

SECTION 801 GENERAL

Sec. 801.01 Description

In reporting the testing, inspection, and shipment of various materials for State Highway use, both the District and Central Office Laboratories and personnel performing work under their respective supervision must use certain report forms specifically provided for this purpose. In the following sections will be found detailed instructions in the proper use and distribution of the reports and forms. In some cases, the forms may be used for more than one kind of material, while in others, the forms are designed for one specific use only or for use with one specific kind of material.

Computerized versions of many of the Test Report forms have been developed. The computerized form will carry the same form number as the printed form, but the form number will be followed by -MC.

In any and all cases, extreme care shall be exercised by all personnel to insure that forms are completely, accurately, legibly, and properly filled out with the required information. Otherwise, test and inspections cannot be reported to the field properly, and, in some cases, it will be impossible for the test to be performed at all. If there is a lack of necessary information, it may be necessary for the Testing Laboratory to delay conducting the test, until proper information concerning the sample has been received by the Laboratory.

Sec. 801.02 Distribution

Unless otherwise noted hereinafter for specific forms, distribution of materials reports shall be as follows:

If the material represented by the test report is to be used on a specific project or schedule, 2 copies of the report will be distributed. The original will be retained by the Laboratory conducting the test, either District or Central Office as the case may be. One copy will be forwarded to the Laboratory not conducting the test. One copy will be sent to the Project Inspector. An additional copy will be distributed to the prime contractor if the material fails.

In the case of test reports for material that is to be used on purchase orders, 2 copies of the report shall be issued. Distribution of reports shall be the same as for projects or schedules, as outlined above.

If the sample is an Independent Assurance sample, distribution of reports will be in accordance with Section 202.04.

In the case of material tested for stock on a general sample, the original of the test report will be retained by the Laboratory conducting the test, and one copy of the test report or release will be sent to the Inspector submitting the sample for test.

Sec. 801.03 Numbering Reports

In reporting tests from District Laboratories, each Laboratory should be supplied with a list of the assigned numbers. When numbering the test report, use the District number, Laboratory number, and sample number. As an example, assume that an Area Laboratory has been assigned the number 4 in the Culpeper District and the sample being tested is number 10 for that Laboratory.

Since the Culpeper District number is 57, the complete test report number would be 57-4-10. If a test is being conducted in the District Laboratory and the sample is number 8, then the test report would be 57-8.

SECTION 802 STOCKING AND ORDERING OF FORMS

Contained herein is a list of all reports and forms currently in use by the Materials Division. Any forms listed as being in stock at the Central Office Laboratory may be requisitioned by the District, if needed, from the Materials Division Central Office. Any forms listed as being in stock at the Fulton Stationery Department may be obtained by the District, when needed, through routine District requisitions to the Purchases and Stores Fulton Warehouse.

Forms stored at the Central Office Laboratory are as follows:

Form No.	Title
TL-13	Notice of Shipment of Concrete Cylinder.
TL-18	Geological Specimen Label.
TL-21	Report of Hydraulic Cement.
TL-23	Report on Neoprene Elastomers.
TL-24	Report on Sample of Liquid Membrane Seal.
TL-26A	(TL-26) Coding Form - Report of Structural Concrete.
TL-28A	Coding Form - Concrete Batch Report
TL-30	Report on Epoxy Products.
TL-38	Report on Road Roughness Test
TL-43	Report on Sample of Asphalt Material.
TL-47	Report on Sample of Miscellaneous Material.
TL-52A	Central Mix Aggregates - Test Results Input Form.
TL-52C	Central Mix Aggregates - Test Results Input Form Monitor Phase.
TL-100A	Asphalt Concrete Test Results Input Form.
TL-100C	Asphalt Concrete Test Results Input Form Monitor Phase.
TL-101	Report on Verification of Truck Scales.
TL-101A	Legal Load Determination
TL-103	Weighpersons Surety Bond Form.
TL-106	Report on Concrete Cores
TL-127A	Job-Mix Input Form - Central Mix Aggregate.
TL-127B	Job-Mix Input Form - Asphalt Concrete Monitor Phase.

Forms Stored at the Fulton Stationery Department are as follows:

Form No.	Title
TL-3	Tag Envelope (For Sample Cards).
TL-9	Notice of Shipment of Pipe, Brick, Block, Etc. (Card).
TL-10	Notice of Shipment of Sample for Test (Commercial) (Card).
TL-11	Notice of Shipment of Sample for Test (Soil and Local Materials) (Card).
TL-13A	Notice of Shipment of Concrete Cylinder (Card).
TL-15	Notice of Transfer of Material.
TL-22	Report on Sample of Coarse Aggregate.
TL-22A	Report on Sample of Concrete Aggregate.
TL-22B	Report on Sample of Fine Aggregate.
TL-25	Report on Sample of Steel.
TL-26	Report on Structural Concrete.

TL-27	Statement of Hydraulic Cement Concrete Mix Design.
TL-29	Report on Sample of Concrete Pipe.
TL-32	Report on Sample of Soil (Laboratory).
TL-35	Report on Sample of Soil - Cement.
TL-50	Report on Asphalt Mixtures.
TL-53	Report of Nuclear Control Strip Roller Pattern.
TL-54	Report of Nuclear Control Strip Field Density.
TL-55	Report of Nuclear Test Section Field Density.
TL-102A	Weighpersons Daily Summary.
TL-105	Report of Job Acceptance Depth Tests.
TL-109	Inspection Report
TL-121	Equipment Receipt.
TL-124	Report of Nuclear Embankment Densities.
TL-125	Report of Field Density of Soil.
TL-125A	Work Sheet for One-Point Proctor.
TL-127	Statement of Asphalt Concrete or Central-Mix Job-Mix Formula.
TL-131	Certification of Materials (FHWA).
TL-136	Report of Independent Assurance Depth And Density Tests.

SECTION 803 USE OF FORMS (BY NUMBER)

Following are instructions for use of the various forms for sampling, testing, inspection, and other related uses. Unless otherwise noted herein, distribution of reports and forms shall be as outlined in Section 801.02. Samples of many of the forms listed herein may be found in Section 805, showing examples of how forms are to be filled out.

Sec. 803.01 Form TL-3, Tag Envelope (For Sample Cards)

A small, brown manila envelope, Form TL-3, is provided for field use in submitting samples to the Laboratory for test. Forms TL-10, TL-11, TL-13, or TL-13A, notification of shipment of samples to the Laboratory, are inserted in the envelope, and the envelope is attached to the OUTSIDE OF THE PACKAGE OR SAMPLE. If the sample is forwarded by parcel post, it will be necessary for the shipper to place the required postage on the tag envelope in addition to the postage on the package.

Sec. 803.02 Form TL-9, Notice of Shipment of Pipe, Brick, Block, Etc.

Materials such as small pipe, masonry units, brick, and small items, shipped to a job shall be accompanied to the job with a card, Form TL-9, completely and accurately filled out to show that each load of material has been tested and approved prior to shipment. The card must be signed by the Plant Inspector approving the shipment. For additional details see Section 204.07(a), 204.22(d), and 204.26(p). (See specimen form in Section 805.)

Sec. 803.03 Form TL-10, Notice of Shipment of Sample for Test (Commercial)

Sample notification card, Form TL-10, is used in the field when submitting samples of plant processed and shipped material to the Laboratory for test. DO NOT USE TL-10 EXCEPT FOR PLANT PROCESSED AND SHIPPED MATERIALS. Proper space is provided on this form for submitting the complete information concerning the material. The card is inserted in the tag envelope, Form TL-3, and shipped with the sample to the Laboratory. The number of the route, project, project section number, and the county must be shown. Letters and numbers used for identification of the type of work also must be shown when applicable. On carload shipments, the car initials and the number must be given. Each separate sample must be given a distinctive number by the Inspector and shown on the notification card on the line marked "Sample No.____", in order to

identify the sample. The quantity represented by the sample must be given for shipped materials. (See specimen form in Section 805.) For additional information, See Section 110.06.

Sec. 803.04 Form TL-11, Notice of Shipment of Sample for Test (Soil and Local Materials)

Sample notification card, Form TL-11, is used in the field when submitting samples of soil and local material to the Laboratory for test. Refer to Section 803.03 for the proper procedure to be followed in completing and forwarding Form TL-11. In addition to the information required in section 803.03, it will be necessary to show the name of the owner and accurate location of the supply of local deposits. Also, a careful approximation of the quantity must be given for local deposits or crushing operations. For additional information, see Sections 110.06, 204.02(a)(1) and (2), 309, 311.05, 311.06 and 313. (See specimen form in Section 805.)

Sec. 803.05 Form TL-13, Notice of Shipment of Concrete Cylinder

Concrete cylinder notification card, Form TL-13, is to be used for recording statistical concrete cylinder materials test data for the data bank. It shall be completely and accurately filled out by the person molding and submitting a cluster of acceptance cylinders for test. See Sections 110.06, 411.02 (f), and 803.03 for the proper procedure in completing and forwarding Form TL-13 with cylinder samples. (See specimen form in Section 805). Under the cylinder column, the cylinder number should be as shown on Form TL-28A, (e.g, if it is listed in the 1st column last 2 spaces on the TL-28A, list the same way on the TL-13.)

Sec. 803.06 Form TL-13A, Notice of Shipment of Concrete Cylinder

Concrete cylinder notification card, Form TL-13A, shall be completely and accurately filled out by the person molding and submitting a cylinder sample for test for F.H.W.A. Independent Assurance Samples, precast items, prestressed concrete, and similar special cases where statistical data is not being compiled. See Sections 110.06, 411.02(f), and 803.03 for the proper procedure in completing and forwarding Form TL-13A with cylinder samples.

Among the information to be included on the form should be the date on which the Inspector wishes the sample to be tested, and any other pertinent remarks, such as any special curing conditions, etc. (See specimen form in Section 805.)

Sec. 803.07 Form TL-15, Notice of Transfer of Material

The Materials Division MUST be notified of all transfers of materials from one project to another. Form TL-15 is available in duplicate pad form with carbon insert for reporting such transfers, and must be submitted promptly by the Inspector on the project from which the material is released. The Inspector, or authorized representative, releasing the material shall fill out the top portion of the form. In the block, "Lab. Test No.", either the inspection report number from the Form TL-109 or the specific laboratory report number from the laboratory test report should be entered, whichever will more accurately identify the specific material transferred. The original must be sent to the District Administrator from whose project the material is transferred, who shall, in turn, promptly forward the report to the District Materials Engineer. The carbon copy should be retained by the Project Inspector releasing the material.

Upon receipt of the original of Form TL-15, the District Materials Engineer, or authorized representative, shall complete the bottom portion, marked "For District Materials Use Only", and make 5 copies. The original shall be retained by the District Materials Engineer in the "Form" project files, and distribution shall be made as pre-printed on Form TL-15 as follows:

One copy each shall be sent to holders of each Materials Project file. This includes 2 copies for the State Materials Engineer (one each for the Releasing and Receiving Files), 2 copies to the Project Inspector (one each for the Releasing and Receiving Project Files), and one copy to the Receiving District Administrator's File (Attn.: District Materials Engineer). (See specimen form in Section 805.)

A record of transferred material MUST be entered in the project materials record for both projects, that from which and that to which the material is transferred.

Sec. 803.08 Form TL-18, Geological Specimen Label

Form TL-18 is used by the Geology Section of the Materials Division to label geological specimens by type, age, location and collector.

Sec. 803.09 Form TL-21, Report of Hydraulic Cement

Form TL-21 shall be used by the Central Office Physical Laboratory to report test results of hydraulic cement. Distribution shall be as outlined in Section 802.02. For additional details, see Section 204.09.

Sec. 803.10 Form TL-22, Report on Sample of Coarse Aggregate

From TL-22 shall be used by the District and Central Office Physical Laboratories to report test results of coarse aggregate. Distribution shall be as outlined in Section 801.02. (See specimen form in Section 805.)

Sec. 803.11 Form TL-22A, Report on Sample of Concrete Aggregate

Form-22A shall be used to the District and Central Office Physical Laboratories to report test results of aggregate for use in hydraulic cement concrete. Distribution shall be as outlined in Section 801.02. (See specimen form in Section 805.)

Sec. 803.12 Form TL-22B, Report on Sample of Fine Aggregate

Form TL-22B is used by the District and Central Office Physical Laboratories to report test results of fine aggregate. Distribution shall be as outlined in Section 801.02. (See specimen form in Section 805.)

Sec. 803.13 Form TL-23, Report on Neoprene Elastomers

Form TL-23 is used by the Central Office Physical Laboratory to report test results of such items as elastomeric bearing pads and bedding materials and expanded rubber, polyvinylchloride and polyethylene, preformed elastomeric, and rubber gasket joint materials. Distribution shall be as outlined in Section 801.02.

Sec. 803.14 Form TL-24, Report on Sample of Liquid Membrane Seal

Form TL-24 shall be used by the Central Office Physical Laboratory to report test results of liquid membrane seal for use in curing portland cement concrete. Distribution shall be as outlined in Section 801.02. (See specimen form in Section 805.)

Sec. 803.15 Form TL-25, Report on Sample of Steel

Form TL-25 shall be used by the District and Central Office Physical Laboratories to report test results of such items as metal electrical conduit, steel beam guardrail and steel guardrail posts, black

and galvanized seamless steel pipe, gray-iron castings, prestressing tendons, reinforcement bars and wire mesh, stainless steel and bimetallic anchor bolts, and wire rope, among other things. Distribution shall be as outlined in Section 801.02, except that a report of prestressing tendons used in the prestress plant, the original will be retained by the Central Office Laboratory, and one copy will be sent to the Prestress Plant Inspector and if material fails, one copy to the Prestress Plant Producer. (See specimen form in Section 805.)

Sec. 803.16 Form TL-26, Report on Structural Concrete

Form TL-26 shall be used by the District and Central Office Laboratories to report compressive strength results of Independent Assurance samples, precast items, prestressed concrete, or miscellaneous concrete items, except those made on the portable compression testing machines, as outlined in Section 411.02 (e), which require no test report.

The information shown on the report should be complete, accurate, and the same as shown on the sample card and batch reports, Forms TL-13 and TL-28. The "CC" number should be recorded for each set tested. The consecutive testing number should be recorded in the "Lab" space. See Section 411.02 (f) for detailed data to be included on Form TL-26.

Distribution of the test report shall be as outlined in Section 801.02.(See specimen form in Section 805.)

Sec. 803.17 Form TL-26A (TL-26), Coding Form – Report of Structural Concrete

This form is to be filled in by the District Materials Section to record the compressive strengths of the cylinders from concrete for which statistical records are being maintained. Under the cylinder column, the cylinder sample number should be as shown on the TL-13 and TL-28A (e.g. if it is listed in the 1st column last 2 or 3 or 4 spaces on the TL-28A and TL-13, list the same way in the TL-26A.) See Section 411.02 (f) for detailed data to be included on Form TL-26A.

Distribution of the computerized test report shall be as outlined in Section 801.02. (See specimen form in Section 805.)

Sec. 803.18 Form TL-27, Statement of Hydraulic Cement Concrete Mix Design

Producers of Hydraulic Cement concrete shall submit to the District Materials Engineer a proposed concrete mix design, Form TL-27, before the start of concrete operations and thereafter in time to be approved by January 1 each subsequent year. The design is intended to be valid for a calendar year so long as the material sources and quantities do not change. Small changes in quantities for moisture adjustment, etc. are not considered sufficient reason for a new mix design. A separate design must be submitted for any significant changes made. A mix design must be submitted for each class of concrete and for each slump desired for each class to be used, also, separate designs must be submitted if it is intended to produce concrete with and without retarder.

It should be noted that the design to be submitted on Form TL-27 is that based on a saturated surface-dry condition of the aggregates. Since the mix design must be made by ACI Method 211, as outlined in Section 405 which assumes the aggregates to be in a totally dry condition, it will be necessary to check the design based on a dry condition and to insure that the proper conversion has been made to allow absorption of the particular aggregates to be used. For practical application, see the exception noted in the example in Section 405.

Each approved design must be assigned by the District Materials Engineer, a design number which should be referenced on the contractor's source of materials letter. The assigned number should include the district number, serial number, of your choosing, and the year of approval. Thus, the first

mixture approved for a plant in the Salem District would carry a mix design number of 2-____-90. These numbers are to be assigned and placed on the mix design form when approved. After approval by the District Materials Engineer, the producer will be notified of approval on the same Form TL-27. In addition, 2 copies will be prepared and distributed by the District Materials Engineer as follows: One copy shall be sent to the State Materials Engineer and one copy retained by the District Materials Engineer.

For additional details, see Section 106.01 (c). (See specimen form in Section 805).

Sec. 803.19 Form TL-28A Coding Form – Concrete Batch Report

The Hydraulic Cement Concrete Coding Form contains three (3) records - A, B, and C. The plant record (A & B) is completed by the producer's technician, and the site record (C) is completed by the Project Inspector. Under the job heading (Column 2), the Producer Technician chooses a numerical (1-9) or alphabetical (A-Z) code for each day beginning with 1 or A, and then changes only if any item in the A or B record changes (e.g. if cubic yards (cubic meters) or pounds (kilograms) of free water changes). If all the loads are identical, then the Producer Technician would fill out the A & B record only once. The Project Inspector would continue recording the project data in Record C, until he receives another TL-28A coding form from the Producer's Technician. The time batched would have to be shown on the producer's ticket. On the next day, the Producer's Technician should restart with 1 or A. The codes that are needed to complete Record C may be obtained from the District Materials Engineer. On Record A the water is in pounds (kilograms) and on Record B the water is in gallons (liters).

If the plant is a ready-mix plant, leave the column for central-mix (B-Section, Column 37) blank. If it is a central-mix plant, mark an "X" in the column.

Under sample numbers, record only acceptance samples. Always record from right to left. For miscellaneous concrete, the TL-28A will not be required unless cylinders are cast.

The remaining spaces on the form are self-explanatory.

The Producer's Technician shall sign the Producer's Certification in the upper right hand corner. (See specimen form in Section 805).

Sec. 803.20 Form TL-29, Report on Sample of Concrete Pipe

Form TL-29 shall be used by the District and Central Office Physical Laboratories to report the test results of brick; and plastic conduit; concrete masonry units; concrete right-of-way monuments, and cast iron, clay, concrete, glass fiber reinforced epoxy, and polyvinylchloride (PVC) plastic pipe; among other things. Distribution shall be as outlined in Section 801.02.

Sec. 803.21 Form TL-30, Report on Epoxy Products

Form TL-30 shall be used by the Central Office Physical Laboratory to report test results of epoxy products. Distribution shall be as outlined in Section 801.02.

Sec. 803.22 Form TL-31, Report on Particle Size Analysis

Form TL-31MC will be used by the Central Office Soils Laboratory to report the laboratory test results of particle size analysis. This is a two page report. The second page is a graphic depiction of grain size distribution.

Typical distribution of scour analysis results shall be as follows: original shall be retained by the Central Office Soils Laboratory, one copy to the District Materials Engineer and one copy to the Resident Engineer.

Sec. 803.23 Form TL-32, Report on Sample of Soil

Form TL-32 will be used by the District and Central Office Soils Laboratories to report the laboratory test results on soils.

If the material represented by the test sample is to be used on a project, distribution shall be as outlined in Section 801.02. If the sample is tested as part of a soil survey, 9 copies of the report shall be prepared and submitted to the Central Office Laboratory, as outlined in Section 301.05(f). The original shall be retained by the Laboratory conducting the test. Upon completion of the pavement design report, the Central Office Laboratory shall attach copies of the soil survey and test reports, and forward 4 copies to the Location and Design Division, 1 copy to the Project Inspector, one copy each to the District Materials Engineer, Research Engineer, Central Office Soils Laboratory, and the Federal Highway Administration. See also Section 702.01.

Sec. 803.24 Form TL-33, Report on Soil, Direct Shear Test

Form TL-33MC shall be used by the Central Office Soils Laboratory to report results of soil direct shear tests. Distribution shall be as outlined in Section 802.22 for Form TL-32. (See specimen form in Section 805.)

Sec. 803.25 Form TL-34, Report on Soil, Unconfined Compression Test

Form TL-34 shall be used by the Central Office Soils Laboratory to report results of soil unconfined compression tests. Distribution shall be as outlined in 803.22 for Form TL-32. (See specimen form in Section 805.)

Sec. 803.26 Form TL-35, Report on Sample of Soil Cement

Form TL-35 shall be used by District and Central Office Soils Laboratories to report test results of soil-cement for Highway use. Distribution shall be as outlined in Section 803.22.

Sec. 803.27 Form TL-36, Report on Soil Consolidation Test

Form TL-36MC shall be used by the Central Office Soils Laboratory to report results of soil consolidation tests. Distribution shall be as outlined in Section 803.22 for Form TL-32.

Sec. 803.28 Form TL-37, Report on Soil Triaxial Test

Form TL-37MC shall be used by the Central Office Soils Laboratory to report results of soil tri-axial tests. Distribution shall be as outlined in Section 803.22 for Form TL-32.

Sec. 803.29 Form TL-38, Report of Profile Evaluation

Form TL-38 shall be used to report profile testing in accordance with VTM-83. Distribution shall be as outlined in Section 801.02.

Sec. 803.30 Form TL-39, Report on Sample of Geotextile Fabrics

Form TL-39 shall be used to report silt fence, geotechnical fabrics, and drainage fabrics. Distribution shall be as outlined in Section 801.02.

Sec. 803.31 Form TL-43, Report on Sample of Bituminous Materials

Form TL-43 shall be used by the Central Office Chemistry Laboratory to report test results of bituminous materials and waterproofing and dampproofing materials, except fabric. Distribution shall be as outlined in Section 801.02.

Sec. 803.32 Form TL-44, Laboratory Data Sheet – Tensile Strength Ratio

Form TL-44 shall be used to report stripping test results for asphalt concrete according to Virginia Test Method VTM-62. Distribution shall be as outlined in Section 801.02.

Sec. 803.33 Form TL-47, Report on Sample of Miscellaneous Material

From TL-47 shall be used by the Central Office Chemistry Laboratory to report test results of miscellaneous materials. These materials include such items as chloride salts, fencing, joint materials (cold-applied, hot-poured, lime, linseed oil, paint, wood preservatives, chain-link and metal fence posts, glass bead reflective material, water and fabric and glass fiber waterproofing and dampproofing materials among other items. Distribution shall be as outlined in Section 801.02.

Sec. 803.34 Form TL-50, Report on Asphalt Concrete Mixtures

Form TL-50 is used to report test results of asphalt concrete mixtures, primarily conventional gradation and asphalt content using the Reflux Extractor, Marshall stability, Abson Recovery, and density tests, among others. Occasionally, physical tests of aggregate for use in asphalt concrete are reported on this form, also. This form is used when the tests are performed in the District or Central Office laboratories. In reporting test results, sieve analyses are to be reported to the nearest 1.0 percent, and asphalt contents are to be reported on the 0.1 percent. Show the job-mix range to the right of test results. Form TL-50 is to be signed or initialed by the State or District Materials Engineer or their representatives, depending on which Laboratory conducts the test. Show whether the sample passes or fails. All samples, whether passing or failing, must be recorded. On all failing samples, a notation must be made as to the action taken.

Samples are to be given consecutive numerical numbers.

Distribution shall be as outlined in Section 801.02, except that one additional copy of the report shall be prepared and distributed to or retained by the Materials Division - Elko. For additional details, see also Sections 202.03 and 502.04. (See specimen form in Section 805.)

Sec. 803.35 Form TL-51, Report on Coefficient of Permeability

Form TL-51 will be used to report the coefficient of permeability of drainable base layers. (See specimen form in Section 805.)

Sec. 803.36 Form TL-52, Report on Dense Graded Aggregate

Form TL-52 will be used by the District and Central Office Soil Laboratories to report the laboratory test results on dense graded aggregates. This test report is reviewed and compared to the production test report for agreement. The original shall be retained by the Laboratory conducting the test. There is no further distribution of this report, unless requested.

Sec. 803.37 Form TL-52A, Central Mix Aggregates – Test Results Input Form

Form TL-52A is to be filled out by the Producer's Technician. The records (A & B) are self explanatory, and you need only enter the codes and/or test data. Note that there are four (4) (B) data records which allow for the entry of the test data for four (4) tests, which is normally the lot size.

Also, note the record (A) has room for listing four (4) contracts. A list of codes for project numbers will be furnished by the Information Systems Division and may be obtained from the District Terminal Operators. If it is not feasible to furnish each Plant Technician a code list, the Technician may write the project number at the top of the form and the code can be entered later by the District Materials Engineer. Most contract code numbers are six (6) digit numbers. Record them from right to left (e.g._ _ 3 2 3 1). In the case of maintenance repair or some other unusual number, show it as it is when it is a six digit number (e. g. _ 3 0 1 2 3). If it is not, put a dash in the blank in front of the number (e.g. _ - 4 0 6 4 or _ _ - 3 2 4). This will prevent the number from being used by the computer as current or future project code. (See specimen form in Section 805).

Sec. 803.38 Form TL-52C, Central Mix Aggregates Test Results Input Form Monitor Phase

Form TL-52C is completed by the District Materials Section and is self-explanatory. (See specimen form in Section 805).

Sec. 803.39 Form TL-53, Report of Nuclear Control Strip Roller Pattern

Form TL-53 shall be used by the Project Inspector to report density test results of nuclear control strip roller patterns. The form shall be prepared, as outlined in Chapter 13 of the "Soils and Aggregate Compaction Manual" available from the Central Office Soils Laboratory.

The inspector shall prepare the original and one copy as required. The original will be submitted to the District Materials Engineer, and the duplicate will be retained by the Inspector. The District Materials Engineer will review the report and retain the original in the project file. See also Sections 206 and 314.01 for additional details. (See specimen form in Section 805).

Sec. 803.40 Form TL-54, Report of Nuclear Control Strip Field Density

Form TL-54 shall be used by the Project Inspector to report field density tests of nuclear control strips. Preparation and distribution of the report shall be the same as outlined in Section 803.38 above. (See specimen form in Section 805).

Sec. 803.41 Form TL-55, Report of Nuclear Test Section Field Density

Form TL-55 shall be used by the Project Inspector to report field density tests of nuclear test sections. Preparation and distribution of the report shall be the same as outlined in Section 803.38 above. (See specimen form in Section 805).

Sec. 803.42 Form TL-56, Asphalt Nuclear Density Thin Lift Worksheet, Roller Pattern

Form TL-56 shall be used to report roller pattern data for asphalt concrete according to VTM-76. The original will be retained at the District Laboratory. One copy will be sent to the project inspector.

Sec. 803.43 Form TL-58, Asphalt Nuclear Density Thin Lift Worksheet, Control Strip Target Density

Form TL-58 shall be used to report roller pattern data for asphalt concrete according to VTM-76. The original will be retained at the District Laboratory. One copy will be sent to the project inspector.

Sec. 803.44 Form TL-59, Asphalt Nuclear Density Test Section

Form TL-59 shall be used to report roller pattern data for asphalt concrete according to VTM-76. The original will be retained at the District Laboratory. One copy will be sent to the project inspector.

Sec. 803.45 Form TL-60, Asphalt Nuclear Density Worksheet, Roller Pattern/Sawn Plugs, and Control Strip Target Density

Form TL-60 shall be used to report roller pattern data for asphalt concrete according to VTM-76. The original will be retained at the District Laboratory. One copy will be sent to the project inspector.

Sec. 803.46 Form TL-61, Quarterly Inventory and Evaluation of Safety Procedures

Form TL-61 shall be used by Central Office and the District Radiation Safety Officers when evaluating the safety procedures of the Department's nuclear program.

This form is a checklist of items that pertain to the storing, operating, transporting and personnel monitoring of portable nuclear gauges.

Sec. 803.47 Form TL-100A, Asphalt Concrete Test Results Input Form

Form TL-100A is to be filled out by the Producer's Technician. With the exception of the Job-Mix ID (procedure same as for TL-127B), the records (A & B) are self-explanatory, and you need only enter the codes and/or test data. Note that there are four (4) (B) data records which allow for the entry of the test data for four (4) tests, which is normally the lot size. Also, note that record (a) has room for listing four (4) contracts or schedules. A list of codes for project numbers will be furnished by the Information Systems Division and may be obtained from the District Terminal Operators. If it is not feasible to furnish each plant Technician a code list, the technician may write project number at the top of the form and the code can be entered later by the District Materials Engineer. Most contract code numbers are six (6) digit numbers. Record them from right to left (e.g. _ _ 1 2 3 4). For maintenance schedules, show the whole number (e.g._ 7 0 5 7 8) and item number (e.g. A _). In the case of maintenance repair or some other unusual number, show it as is when it is a six (6) digit number (e.g. _ 3 0 1 2 3). If it is not, put a dash in the blank in front of the number (e.g. _ - 4 0 6 4 or _ _ - 3 2 4). This will prevent the number from being used by the computer as current or future project code. (See specimen form in Section 805).

Sec. 803.48 Form TL-100C, Asphalt Concrete Test Results Input Form Monitor Phase Form TL-100C

Form TL-100C is completed by the District Materials Section and is self- explanatory. (See specimen form in Section 805).

Sec. 803.49 Form TL-101A, Report on Legal Load Determination

Form TL-101A is to be used to document the legal load determinations of trucks hauling tonnage materials to the Virginia Department of Transportation. The form is to used by the District Weigh Monitor in accordance with Section 108.04(c). The Distribution is one copy to the Truck Driver, one copy to the Certified Weigh Person, and one copy to the District Materials Engineer. (See specimen form in Section 805.)

Sec. 803.50 Form TL-102A, Weighpersons Daily Summary

Form TL-102A is to be furnished to each order and/or contract receiving materials. The weighperson is to fill out the Daily Summary and have the Project Inspector's copy delivered to the person taking up tickets at the project or work area by the end of the next working day. The quantity of materials shipped may be weighed in either the English system of units or the metric system, and the total shown on the appropriate line on the TL-102A. The line for the other set of units shall be filled out by making the appropriate conversion. The person receiving the Daily Summary shall reconcile it against the tickets received. If there are differences, they should be corrected or explained. The

producer or contractor is to be notified of any differences. The Daily Summary Sheet shall be turned in at the completion of a project to the District Drafting Room who will check it against the final estimate and the weigh tickets. Upon completing the final estimate the Daily Summary Sheet shall be sent to the District Materials Engineer for microfilming. (See specimen form in Section 805).

Sec. 803.51 Form TL-103, Surety Bond Form

Form TL-103 is to be submitted in accordance with Virginia Department of Transportation Specifications Section 109.01(a) Measurement of Quantities. The scale owner shall post his bond at his work area and send one copy to the State Materials Engineer. (See specimen form in Section 805).

Sec. 803.52 Form TL-105, Report of Job Acceptance Depth Tests

Form TL-105 shall be used by the District Materials Engineer to report the tabulated results of job acceptance depth tests of aggregate base, subbase, and select material, cement or lime stabilized or treated subgrade or aggregate pavement materials, and asphalt concrete base material. A separate sheet should be used for each type of material (subbase, base, etc.), and the type of material stated at the top of the sheet. The "Directional Lane" (NBL, SBL, EBL, WBL) should be abbreviated as appropriate in the space provided above the "Measured Depth" column. The station numbers where each depth test is made should be listed in the appropriate column.

There is a column for recording the "Measured Depth". It is suggested that either a "Lane No.", as outlined in Section 803.59, or the name or abbreviation of the item tested (acceleration or deceleration lanes, turning lanes, ramps, etc.), be shown in the spaces provided at the top of the "Measured Depth" column. Record as many depth tests as possible for each station. Bridges will be shown on the tabulations, the District Materials Engineer and the District Drafting Room Supervisor should be in mutual agreement, in order that sufficient data be recorded to make the necessary finals computations.

In the "Plan Depth" and "Plan Width" columns, record the appropriate data for the particular item and station. If the plan depth or widths are different for the different items recorded in the depth columns, in cases where more than one depth test is recorded in the same line, show the different plan depths or widths in the same space and in the same order left to right on the sheet.

In the "Remarks" column, show any other pertinent data such as paver applications width (for aggregate Materials), specific location of the test within the lane or application width, and any other data that will be helpful in the future, should any test be questionable. Use more than one line in the "Remarks" column, if necessary to show pertinent data, and drop to the next line to begin a new entry.

A note will be made at the end of the report in the bottom of the last sheet stating whether or not testing is completed on the project.

The original test data should be retained in the District Materials Engineer's file. If the project Inspector has made the depth tests, he shall forward the test results and related data to the District Materials Engineer immediately, in order that the District Materials Engineer may complete Form TL-105 without delay.

At the completion of the project, and after any necessary corrective measures have been taken, the District Materials Engineer prepares Form TL-105 noting only those depth tests which failed to meet the Specifications. A statement such as "All Depth Tests are Satisfactory" or "All Depth Tests are satisfactory except as noted below" will be needed. The District Administrator will send copies of the report, together with a letter of transmittal, to the District Materials Engineer, the District Drafting Room Supervisor, and the Project Inspector. The District Administrator will sign a statement on the

letter of transmittal to the effect that (1) all increments of the pavement have been tested for depth and found to be satisfactory, or (2) if found to be unsatisfactory, have been duly corrected.

See also Sections 314.02 and 503.03 for additional details. (See specimen form in Section 805).

Sec. 803.53 Form TL-106, Report on Concrete Cores

Form TL-106 shall be used to report the results of depth and other physical tests on concrete cores taken from portland cement concrete pavements or structures.

The original and one copy of this report will be retained by the Central Office Laboratory, 6 copies will be sent to the District Administrator, and one copy will be sent to the State Construction Engineer and the Highway Research Council. The District Administrator will make distribution of his copies in accordance with District procedure. See Section 412.03 for additional details.

Sec. 803.54 Form TL-107, Confirmation of Test Results

Form TL-107 shall be used to report the findings of the investigation into the cause of concrete strength test failures.

Sec. 803.55 Form TL-109, Inspection Report

Inspection report, Form TL-109, will be used to report the release of all approved plant inspected material, except asphalt concrete and aggregates, and will be forwarded by the Plant Inspector. As Form TL-109 will cover approved material only, no further report will be made to the field on materials for which this form is issued. (See Section 110.03 for further explanation in cases of exception).

Form TL-109 is conveniently provided in carbonless pad form in quadruplicate. The original is sent to the District Materials Engineer, a copy is sent to the Project Inspector responsible for the project. A copy will be retained by the Technician writing the report. Each sheet is plainly marked at the bottom to show for whom the sheet is intended. In the event materials are released for use in a prestress plant, the Technician making the release shall send the "Project Inspector's copy" of the report directly to the Prestress Plant Inspector instead. In cases where Form TL-109 is prepared by a Prestress Plant Inspector to cover shipments of prestressed concrete units from his plant, all copies of Form TL-109 shall be sent to the District Materials Engineer for distribution.

Separate reports are to be issued for materials shipped to each individual project, and each report should carry only one project number. However, more than one shipment to a specific project may be included in the same report.

In order to avoid illegibility of the last copy of a set of TL-109's it is suggested that a metal plate or other suitable hard surface be inserted between the sets of the form when the inspector prepares a report.

In the heading of the "Quantity" column, block out the 3 units that do not apply to the particular material shipment, either "Tons", "Gals/Liters", "Feet/Meters", and/or "Units". If the material is shipped in units other than tons, or units, specify the particular unit in the column entries.

The "Lab. Test Number" should include the specific number of the laboratory test report covering tests of the samples submitted to represent material included on Form TL-109.

The Form TL-109 "Report No." should include the Inspector's prefix code number followed by the consecutive number of the report. This number should be consecutive in all cases. If the report is a "corrected copy", the Inspector must indicate briefly the specific item in which the correction is being

made. This is particularly necessary where the correction involves a change in the project number or other identification related to the project description. The reason for correction MUST be shown, in order that the original report can be properly voided. For additional details in the use of Form TL-109 with specific materials, see Section 200. (See specimen form in Section 805).

Sec. 803.56 Form TL-121, Equipment Reciept

Whenever testing equipment is transferred to the District Materials Engineer, inspector, or any other authorized person, Form TL-121 must be filled out in triplicate to denote receipt of the equipment by the proper recipient. The District Materials Engineer must retain the original, while the person assuming responsibility for the equipment later transfers it to another person, the second copy of the receipt is sent to the District Materials Engineer at the time of the second transfer. See also Section 702.03 (d) for additional details. (See specimen form in Section 805).

Sec. 803.57 Form TL-122, Nuclear Gauge Transferral Reciept

Whenever a nuclear density gauge is transferred to the District Materials Engineer, inspector, or any other authorized person, Form TL-122 must be filled out in triplicate to denote receipt of the equipment by the proper recipient. The original copy is to be forwarded to the State Materials Engineer for inventory tracking purposes. The second copy is to be sent to the District Materials Engineer, and the third copy is to be given to the person assuming responibility for the equipment. (See specimen form in Section 805).

Sec. 803.58 Form TL-124, Report of Nuclear Embankment Densities

Form TL-124 shall be used by the Project Inspector to report nuclear density test results of embankments and finished subgrades. The form shall be prepared, as outlined in the "Nuclear Moisture-Density Device Operation and Testing Procedure Manual" available from the Central Office Soils Laboratory.

The inspector shall prepare the original and one copy as required. The original will be submitted to the District Materials Engineer, and the duplicate will be retained by the Inspector. See also Section 206 and 314.01 for additional details. (See specimen form in section 805).

Sec. 803.59 Form TL-125, Report of Field Density of Soil

Form TL-125 shall be used by the project Inspector, or other authorized representative to report the results of conventional density tests (Sand Cone Method) on soil in the field. The reports must be completely filled out, including the station number, elevation, and distance right or left of centerline. Whenever tests are not run due to gravel, muck, rock, or whatever reason, a report must be completed giving reasons, and such data as length (station to station), as well as depth or elevation in the fill. All tests, both passing and failing, must be reported. The failing test report must show what action was taken and when the retest will be made. Independent Assurance density tests must be marked "Independent Assurance Density Test".

The original will be sent to the District Materials Engineer. The Project Inspector will retain a duplicate copy in the project files. See also Sections 206 and 314.01 for additional details. (See specimen form in Section 805).

Sec. 803.60 Form TL-125A, Worksheet for One-Point Proctor

When the one-point proctor Method, VTM-12, is used to determine the ratio of the dry weight of soil to the maximum dry weight obtainable, Form TL-125A shall be used by the Project Inspector, or other authorized representative. This form must be used in conjunction with Forms TL-124 or TL-

125 as outlined in Section 206 and 314.01. In order to complete Form TL-125A, Typical compaction curves must be used. These may be obtained from the District or Central Office Laboratories, or may be found in VTM-12. Distribution of Form TL-125A shall be the same. as outlined in Section 803.59. (See specimen form in Section 805).

Sec. 803.61 Form TL-127, Statement of Asphalt Concrete or Central-Mix Aggregate Job Mix Formula

Producers of Central-Mix Aggregate shall submit to the District Materials Engineer a proposed mix design, Form TL-127, before production begins and there- after in time to be approved by January 1 each subsequent year. Asphalt Concrete Producers shall submit to the District Materials Engineer a proposed mix design, Form TL-127, before production begins, which shall remain in effect for the current and subsequent construction seasons, provided the results of rests performed on material produced consistently meet the requirements of the job-mix for gradation, asphalt content and temperature as well as field Marshall requirements. The design is intended to be valid for a calendar year so long as the material sources and quantities do not change. Small changes in quantities for gradation adjustment, etc. are not considered sufficient reason for a new mix design. A separate design must be submitted for any significant changes made. A mix design must be submitted for each type and size material to be furnished.

Each approved design must be assigned, by the District Materials Engineer. a design number which should be referenced on the contractor's source of materials letter. The assigned number should include the district number, serial number, of your choosing, and the year of approval. Thus, the first mixture approved for a plant in the Salem District would carry a mix design number of 2-__-90. These numbers are to be assigned and placed on the mix design form when approved.

After approval by the District Materials Engineer, the Producer will be notified of approval on the same Form TL-127. In addition, 2 copies will be prepared and distributed by the District Materials Engineer, as follows: one copy shall be retained by the District Materials Engineer and one copy shall be sent to the State Materials Engineer. For additional details, especially the caution regarding sources of materials. See Section 106.01(c). (See specimen form in Section 805.)

Sec. 803.62 Form TL-127A, Job Mix Input Form – Central-Mix Aggregate

Form TL-127A is completed by the District Materials Section from Form TL-127. It has one (1) record (A) at the top of the sheet. Here is indicated what codes and data are to be shown on the remainder of the form in reference to record A (e.g. A-Plant ID, Job-Mix ID, size, type material, % passing, Liquid Limit, B-aggregate. type, aggregate. source, aggregate. %). With the exception of the Job-Mix ID, the record (A) is self-explanatory, and you need only enter the codes and/or test data. Under the Job-Mix ID, start with the number one (1) as YY01 and continue in numerical order for the current year(e.g., 9001, 9002, 9003.) This form need only be submitted at or just prior to the beginning of the year and at any time a job-mix is to be revised. (See specimen form in Section 805.)

Sec. 803.63 Form TL-127B, Asphalt Concrete Job Mix Input Form

Form TL-127B is completed by the District Materials Section From Form TL-127. It has two (2) records (A & B) at the top of the sheet. Here is indicated what codes and data are to be shown on the remainder of the form in reference to records A & B (e.g. A-Plant type, Mix type, % passing, asphalt content; B-aggregate. type, aggregate source, aggregate. %). With the exception of the Job mix ID, the records (A & B) are self-explanatory, and you need only enter the codes and/or test data. Under the Job-Mix ID, start with the number one (1) as YY01 and continue in numerical order for the current year (e. g. 9001, 9002, 9003). This form is to be submitted when a job-mix is revised. (See specimen form in Section 805).

Sec. 803.64 Form TL-131, Certification of Materials

Form TL-131 shall be used by the District Administrator to report the certification of materials used on Federal Aid projects to the Federal Highway Administration at the completion of projects and after thoroughly checking project materials records. The original and one copy is sent to the Federal Highway Administration, one copy is sent to the Central Office Main File Room, and one copy is retained by the District Administrator and one copy is sent to the Central Office Laboratory General Services Section with a copy of Form C-21, final contractors estimate.

Sec. 803.65 Form TL-136, Report of Independent Assurance Depth and Density Tests

Form TL-136 shall be used by the District Materials Engineer to report the tabulated results of Independent Assurance depth and density tests. This form is to be used for those items listed in Section 206 that require depth and density tests. It is arranged in such a manner that it may be used for both conventional and nuclear density tests.

When used for conventional tests of any materials, or for nuclear tests of embankment or stabilized subgrade, a maximum of 5 individual density tests may be recorded. In this case, the "Average Density" line should be omitted. When used with nuclear tests involving control strips (Forms TL-53, TL-54, and TL-55), Form TL-136 may only show one independent Assurance density test, which would be the average of 5 individual readings. In this case, the 5 individual readings and the average of the 5 readings, all shown on Form TL-55, would be recorded on Form TL-136. (See Section 206 for the distance represented by the average of 5 tests for each material.)

In the case of depth tests, a maximum of 5 tests may be recorded. It is suggested that the same number of depth tests be shown on one sheet, corresponding to the number of density tests shown (either one or 5, as the case may be), since this may be less confusing.

In regard to the "Lane No." columns, each traffic lane should be given a separate number, beginning with the outside traffic lane in the NBL or EBL direction (Lane No. 1) and continuing consecutively across the roadway to the outside lane in the SBL and WBL opposite direction. Shoulders may be designated as "O.S." (outside) or "I.S." (inside) together with the directional symbol ("NBL", "SBL", "EBL", or "WBL") on divided roadways. On undivided roadways. the shoulders may be designated with the directional symbol only. In the case of density tests on embankments, merely show the directional symbol ("NBL", etc.) since it may be difficult to relate the test location to a specific traffic lane.

In the depth testing table, in addition to the traffic lane location, the point of test may be further located by recording the measured depth in the appropriate quarter or centerline column. (This refers to the specific point in the traffic lane and not the directional lane.) In the case of shoulder depth tests, ignore the specific location and record the depths in the "C.L." column.

Although the depth and density test locations are primarily related to the definition of "directional" lane, as outlined in Section 206, providing more specific location data may be of considerable aid, if it is felt advisable at a later date to recheck questionable material.

The original of the report will be retained by the District Materials Engineer. One copy will be sent to the Project Inspector. See also Sections 202.03, 206, 314.01, 314.02, 503.02, and 503.03 for additional details. (See specimen form in Section 805).

Sec. 803.66 Form TL-137, Report for Settlement Plate

Form TL-137 shall be used by the Project Inspector to record the change in elevation of a settlement plate as a result of placement of an embankment. The data shall be taken in accordance with

directions outlined on the front of this form. On the reverse side, the elevations are plotted versus the square root of time for the entire period of settlement.

The inspector shall prepare the original and three copies. The original will be submitted to the District Materials Engineer, and the Inspector will retain one of the duplicates. The State Materials and Project Engineers shall each receive a copy of the report. See Section 303.04(i) of the Road and Bridge Specification for additional detail.

Sec. 803.67 Miscellaneous Materials Records and Reports

In the following paragraphs will be found instructions for handling and keeping miscellaneous materials records and reports that are not assigned specific TL numbers, but that are equally necessary in maintaining proper materials files. These items include such records as materials notebooks, plant diaries, preliminary engineering status reports, and so on.

(a) Estimated Quantities of Materials

The District Materials Engineer, shall, upon the award of every construction project, prepare a list of the estimated quantity of materials, as required in Section 106.01(a). He shall promptly forward 1 copy to the Project Inspector. Whenever a loose leaf type materials notebook will be used by the project inspector, the District Materials Engineer is to furnish the list of estimated quantities on loose leaf sheets suitable for direct placement in the notebook. Whenever a bound materials notebook will be used, the District Materials Engineer is to furnish the list of estimated quantities on sheets of paper appropriately sized such that they may be glued or otherwise fastened in the bound book. The list should be referenced to the contract proposal, Forms C-7, showing the specific contract item number for each specific material on the estimated quantities list. For hydraulic cement concrete, list the quantity (cubic meters) for each class of concrete, such as Class 20, Class 30, etc. However, in the case of class Class 20 concrete, it will be necessary to separate this quantity into that used for structures and that used for miscellaneous and incidental.

(b) Sources of Materials

The contractor shall be notified by letter and/or verbally at the pre-construction conference that the Source of Materials form is to be submitted to the District Materials Engineer, Project Inspector, Project Engineer or other designee as a digital file. The Contractor should be provided with a computer diskette containing the digital file template(s) of the Scheduling & Contract Division's Form C-25 for use in listing the information to be submitted.

The District Materials Engineer's office will, upon receipt of the contractor's submittal, immediately determine the method(s) of acceptance for routinely encountered materials and/or material sources. The District Materials Engineer will forward portions of the submittal containing non-routine items to the Materials Division's Central Office for processing. The Central Office of the Materials Division will handle the processing of non-routine items, including the notification of and assignment of testing responsibilities by independent inspection agencies and proper acceptance methods from other internal Divisions. The Central Office of the Materials Division will advise the District Materials Engineer of any noted deficiency regarding the information on the non-routine items. If, for any reason, the contractor's submittal is incomplete, incorrect or needs clarification, the Central Office of the Materials Division will return the Contractor's submittal to the District Materials Engineer for resolution of the problem. Upon resolution of such deficiency, the submittal will be returned to the Central Office of the Materials Division for processing. After processing, the submittal will be returned to the District Materials Engineer for final distribution.

The District Materials Engineer will send copies of the processed Source of Materials to the Project Inspector, Project Engineer, the Contractor, and any other District Materials Engineer who has been assigned testing/monitoring responsibilities. The Project Inspector should not approve the use of material until verification is received that the Source of Material has been processed or otherwise receives a processed copy.

For additional details, especially the caution regarding substitutions for source of materials letters, see sections 106.01(b) and (c).

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(c) Materials Notebooks (Project Materials Records)

Inspectors shall keep records of materials received and used on a project for reference and review. These records may be in the form of bound materials notebooks, or other types of records as directed by the State Materials Engineer. A separate document, containing a complete record of all the materials used on the contract, and a record of the tests covering such materials, must be kept for each project. If the record is in the form of a notebook, it must be marked "MATERIALS NOTEBOOK", and is to contain no other data.

Indexed materials notebooks, with proper headings for required information, are available on request from the District Materials Office or online using the VDOT Portal.

The estimated quantities of materials must be recorded on the summary page of the material notebook. A separate record shall be kept for each type of material shown in the list of estimated quantities. The inspector must visually inspect all material received on a job. He shall record in the "Remarks" column of the proper section in the project materials notebook that such visual inspection has been made.
At the completion of the project, an accurate summary of the actual quantities of each type of material tested and used must be shown in the front of the materials notebook adjacent to the list of estimated quantities. The amount of material recorded as tested and received on the job must equal or exceed the amount used. The statement of actual quantities used will be checked against the quantities shown on the final voucher, and MUST AGREE. Only those test reports received from the Materials Division and authorized commercial laboratories shall be entered in the materials notebook, except as noted herein.

The Resident Engineer, Area Construction Engineer and/or District Materials Engineer or their designee shall inspect the project materials record for each job every 12 months with a minimum of one inspection per project. This inspection frequency does not supersede project record reviews as indicated in the VDOT Construction Manual – Appendix C. When an Inspector is assigned to a project, the Resident Engineer and District Materials Engineer shall make certain that the Inspector is thoroughly familiar with, and understands, the instructions for the proper keeping of the project materials records.

It is absolutely essential that prestressed concrete plant materials records be kept separate from project materials records. Quantities of materials used in prestressed concrete work will be included ONLY in the Plant Inspector's materials record. The Inspector's copy of all test reports issued for materials for this work will be sent to the Plant Inspector. If the project Inspector receives test reports for material that has obviously been used by a prestress plant, he should make every effort to see that the reports are promptly sent to the plant Inspector.

Upon the completion of each job and after thoroughly checking the contents, the Inspector shall send the materials record to the District Drafting Room together with other project records. The District

Materials Engineer shall then check the Inspector's project materials record for accuracy and for the proper balance between the estimated quantities, amounts used, and amounts tested.

After checking by the District Materials Engineer, the District Contract Control Technician shall forward to the District Drafting Room for filing with other project records. In the case of prestressed concrete, the plant inspector, after completion of product fabrication shall send three (3) copies of the TL-109 inspection reports to the Central Office Materials, Structures Section within 30 days of final shipment. This is to ensure that the product complies with Road and Bridge Specifications. Additionally, this also confirms product fabrication completion and delivery at project site for project tracking.

(d) Bridge Coring Reports

In accordance with Section 305, the District Geologist shall prepare a written geological report upon completion of the survey, in conjunction with preparation of geology bridge sheets. Some of the information is mandatory, such as Title and Location, while the bulk of the information comprising the report is dependent on local conditions. If the outline is followed, all pertinent information required by the Structure and Bridge Division will be covered.

In the Engineering Geology section of the report, recommendations are made for the type of foundation to be used and the elevation of the bearing strata. Many variables must be taken into account in these determinations, such as type and diameter of piling, type of hammer to be used, etc. In submitting reports on both major and minor structures, the following recommendations are to be included in the report:

A recommendation as to whether or not piles should be used. If piles are recommended, the recommendation should include the type and the length of pile to be used. If the piles are recommended, it should be noted whether or not pile tips will be needed for hard driving conditions.

The District Geologist in all cases should include the above re- commendations in his report. This should be discussed with the District Structure and Bridge Engineer and reviewed by the District Materials Engineer. In order to make a practical recommendation, it is suggested that the District Geologist coordinate closely with the District Structure and Bridge Engineer in writing this section of the geologic report.

The geology report is intended to be a summary of geology conditions at the site. The report should be limited to one page, except where unusual conditions warrant additional comment.

Each job is assigned a BC (Bridge Coring) number for filing purposes by the appropriate District. The BC number shall consist of the last 2 digits of the year, followed by the individual District code number, followed by the chronological number of the job. Thus, for the fifth job surveyed in the Culpeper District in the year 1990, the BC number would be 90-57-5. When a job is completed, the geology sheet and geologic report should be numbered so that they may be filed immediately.

The bridge coring report consists of a geology sheet (graphic log) and a geologic report (summary). The original lines of the geology sheets will be filed in the Central Office Structure and Bridge Division along with the field logs. Care should be taken not to fold or crease the linen copies. They should be sent rolled in a mailing tube. The final report should be submitted to the Central Office Structure and Bridge Division and a copy sent to the Central Office Geology Section.

(e) Price Adjustment Form

When certain types of materials fail to comply with specification, but are not considered to be detrimental for job use, a price adjustment shall be applied to the material. Forms are available for

use to show the degree of failure and the amount of price adjustment. The form suggested shall be used for computing individual lot adjustment and adjustments on variability. When the form is used for adjustment on variability, the data in the columns marked "Control Test Report Number" and "Fails By" may be omitted. The standard deviations should be computed by the District Materials Section.

The original of the adjustment form is sent to the District Administrator, and one copy each is sent to the, District Computer, District Drafting Room Supervisor, Project Engineer, and Project Inspector, Contractor and Producer. One (1) copy is to be sent to the State Materials Engineer. The District Materials Engineer retains a copy for his files. The District Administrator attaches a copy of the form to the certification of material that is sent to the Federal Highway Administration. (See specimen forms in Section 805).

SECTION 804 REPORTS BY COMMERCIAL TESTING LABORATORIES

In general, inspection at plants and mills within the state will be done by the Department of Transportation employees, while inspection outside of the State will be done by an authorized commercial laboratory.

However, reports covering such material as treated lumber, concrete culvert pipe, corrugated metal pipe, reinforcing steel, and structural steel, among others, will frequently be made on the standard forms of the commercial laboratory authorized to do this work.

In any event, commercial laboratory test reports will receive the same distribution as a report issued by the Department.

SECTION 805 SAMPLE FORMS